DOCUMENT RESUME

ED 445 071 TM 031 748

AUTHOR McCoy, Mary Helen S.; Taylor, Dianne L.
TITLE Classroom Effects of Title I Schoolwide Implementation at the High School Level.
PUB DATE 1999-01-00
NOTE 26p.; Paper presented at the Annual Meeting of the Southwest Educational Research Association (San Antonio, TX, January 21-23, 1999).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Compensatory Education; *Educational Innovation; *High School Students; High Schools; Inner City; *Instructional Effectiveness; Professional Development; *Teaching Methods
IDENTIFIERS *Elementary Secondary Education Act Title I

ABSTRACT

This study focused on the extent to which nontraditional instructional strategies targeted by a high school in its Title I schoolwide plan were observable in classrooms. The study was conducted in an inner-city high school where 76% of the students are classified as economically deprived. Data were collected through classroom observations in 18 of the 33 regular classrooms in the school. Both qualitative and quantitative data were collected. The classrooms of two teachers were the focus of more detailed study. The evidence overall was mixed regarding implementation of Title I instructional goals. The use of technology was hindered by resource shortages and teacher adherence to teacher-centered strategies. In nearly all classes, students were assumed to be passive learners, although the skill of the faculty in establishing rapport with these low-income students and in creating a positive learning climate are strengths on which the school could build in promoting Title I instructional components. The two classes that were studied more extensively exemplified a traditional teacher-centered class and a student-centered class in which students were encouraged to use various learning styles to accomplish a week-long project on poetry. The contrasts between these two classes suggests that teacher professional development could do much to encourage student-centered instruction. (Contains 3 tables and 19 references.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

Running head: TITLE I CLASSROOM EFFECTS

ED 445 071

# Classroom Effects of Title I Schoolwide Implementation at the High School Level

Mary Helen S. McCoy and Dianne L. Taylor
Louisiana State University

TM031748

M. H. S. McCoy

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX, January 1999.



BEST COPY AVAILABLE

# Classroom Effects of Title I Schoolwide Implementation at the High School Level

Title I of the Elementary and Secondary Education Act, implemented in 1965 as a cornerstone of President Lyndon Johnson's War on Poverty, is the largest federal aid program for elementary and secondary schools (Education Funding Research Council, 1995). Referred to as Chapter 1 for over a decade in the eighties and nineties (Education Funding Research Council, 1995), the name was changed back to Title I in 1994, and will be referred to as Title I in this paper.

Historically, Title I dollars were funneled almost exclusively into elementary schools, primarily because students seemed to make greater gains in lower grades than in upper grades (Borman & D'Agostino, 1996). According to Borman and D'Agostino (1996), the Sustaining Effects Study of 1976-1979 was notable in measuring the effectiveness of Title I. Findings signified that academic achievement of students receiving Title I services, although better than that of similarly disadvantaged students not receiving services, did not approach that of more advantaged youngsters (Carter, 1984). Thus, more recent changes in Title I law have encouraged greater allocations to secondary schools to sustain achievement of at-risk students throughout their school years.

Schools become eligible for Title I funds based on the concentration of poverty in the student population. Wong and Meyer (1998) explain that for many years Title I was implemented as a "pullout" model, that is, eligible students were removed from the regular classroom to receive Title I supplementary instruction

during the normal school day. The pullout model was used to satisfy federal monitors that Title I funds were being spent only on students identified as eligible. However, pulling students out of class deprived them of instruction with their regular teacher (LeTendre, 1991), and often caused them to fall further behind. Moreover, pulling only some students out of class had a stigmatizing impact on the affected students, and a disruptive impact on classroom instruction. In addition, organizational planning was complicated by having to provide extra services to some children but not others (Wong & Meyer, 1998). As a result, the Title I program was criticized for placing emphasis on following rules regarding children to be served rather than on effective teaching (Borman & D'Agostino, 1996).

These drawbacks led to a redesign of the Title I program, to blend services with a core academic curriculum so that all students at a school could benefit from Title I dollars. This schoolwide option, supported by the proposition that "the most effective way to improve student performance . . . is to improve the entire educational environment" (Education Funding Research Council, 1995, p. 6), allowed schools to design a program that best meets the needs of all students attending a school (Borman & D'Agostino, 1996). Under the schoolwide option, Title I resources are coordinated with other available school resources (Wong & Meyer, 1998). In addition, the schoolwide option is intended to provide learning experiences involving students' higher order thinking (LeTendre, 1991). Changes in the laws such as these focused on holding schools accountable for performance

outcomes (Education Funding Research Council, 1995), rather than simply on how Title I dollars were spent.

Initially, schoolwide programs were infrequently implemented since schools were required to meet a threshold of at least 75% low income students, and local education agencies were required to match federal grants with local funds (Wong & Meyer, 1998). Legislation in 1988 removed the matched-funds requirement (Wong & Meyer, 1998). Amendments enacted in 1994 further encouraged the use of the schoolwide option by lowering the eligibility threshold to schools with a 50% low-income student population (Wong & Meyer, 1998), and the number of schools selecting the schoolwide option increased dramatically.

Other changes brought about by the 1994 law are that students not be confined to a remedial track, but rather be taught to the same standards as other children; that more funds be directed to high schools; and that professional development be emphasized to boost the use of research-based instructional techniques in classroom instruction (Education Funding Research Council, 1995). Thus, changes in the Title I law called for a shift in teaching strategies away from the teacher-centered, lecture method and toward student-centered approaches. The present study focuses on the extent to which non-traditional instructional strategies targeted by a high school in its schoolwide plan were observable in classrooms. First, however, a review of instructional strategies teachers might opt to use is provided.

## Secondary Level Effective Teaching Strategies

According to (Murphy, 1991), the instructional process (or core technology) is the hardest aspect of school change. In high schools, successfully implementing instructional reforms is complicated by the hectic pace of school life, which Schlechty (1992) notes increases the tendency of teachers to resist change. Also contributing to teacher resistance is the difficulty of managing large numbers of students, and the amount and difficulty level of information teachers are responsible for imparting (Evans, 1996).

Traditionally, lecture has prevailed as the instructional strategy of choice at the high school level, with teachers doing most of the talking and students responding to teacher questions or asking for clarification, a teacher-as-worker and students-as-product model (Sizer, 1984). There are, however, more effective instructional strategies which encourage interactive involvement of secondary students in learning, and require that teacher-centered instruction give way to student-centered pedagogy (Murphy, 1991). In a meta-analysis of the literature concerning effective instruction, Kline (1995) concluded that no single strategy is sufficient to build and sustain high achievement levels, rather a variety of approaches should be used. Many of these strategies promote the teacher's role as facilitator, modeler, and/or coach (Evans, 1996; Murphy, 1991).

One alternative to lecture is cooperative learning, in which small groups work on tasks requiring the collaboration of group members (Qin, Johnson, & Johnson, 1995). Qin et al. (1995) suggest that cooperative learning can help

prepare high school students to be effective employees as they enter the world of work, where cooperative work groups are often found. Another approach advanced by Kline (1995) is reality-based learning, which magnifies the meaningfulness of instruction by using authentic purposes, materials, and content.

A third strategy is interdisciplinary or thematic units. This approach helps students understand relationships among subject areas (Murphy, 1991). According to Peters, Schubeck, and Hopkins (1995), interdisciplinary or thematic teaching makes maximum use of recent research on cognition, which suggests that learners create schemata or webs of information as learning is accomplished. By integrating subject matter knowledge in connection with a major theme, more extensive schemata can be developed. Used appropriately, thematic or interdisciplinary units require application, analysis, comparison and contrast, and judgment (Kline, 1995).

A fourth technique uses manipulatives or a "hands-on" approach to guide students toward constructing their own realities and solving their own problems (Kline, 1995). These experiences might include "games, simulations, role playing, creative dramatics, pantomime, and contexts that show integration of concepts" (Soniat, 1998, p. 11).

Teaching to student learning styles gears instruction toward maximum use of students' preferred ways of accessing their intellectual strengths (Soniat, 1998). According to O'Neil (1990), the learning styles most widely known are those defined as visual, auditory, tactile, and kinesthetic. Kline (1995) believes instruction which

favors student learning styles is particularly advantageous to underachievers, since regardless of intelligence all students learn best when using their preferred style.

According to Kline (1995), an effective strategy is teacher modeling of behaviors for students to learn and practice. For example, teachers can share with students their thoughts about ways they approached completing a task or an assignment, or coming to conclusions. By understanding possibilities which are evident in teachers' thinking patterns, students can better access their own thinking patterns (Soniat, 1998).

Computers can also be used to enhance student learning, if they are properly integrated into instruction and used as resources (Van Dusen & Worthen, 1995). A good example of effective computer utilization is for students to use computers to access data bases as part of a research project. Having students utilize computers only for rote drill work rather than for enhanced learning or critical thinking is a typical problem (Wilson, 1986). Another problem associated with computer use in classrooms is that while students are engaged in computer activities, often using headsets, they are effectively deprived of normal classroom social interactions with the teacher and with fellow students (Claiborne & Taylor, 1998). Roth, Woszdyna, and Smith (1996) caution teachers to remember that a computer does not "assist" instruction unless its use is integrated into classroom teaching and learning activities, and thus to plan computer-assisted class activities carefully.

The use of alternative assessments is a learning strategy that can appeal to individual student aptitudes and interests, while also reshaping teaching strategies

(Kline, 1995). Many students learn best by doing. Although there are many types of alternative assessments, among the most prominent are writing exercises, exhibitions, portfolios, and problem-solving teams (Murphy, 1991). Assessments might take the form of speeches to an audience, debates, laboratory experiments, model-building, dramatic performances, and teams of students who together solve real-world problems outside of classrooms.

## Methodology

### Description of the School

The school involved in the present study, Copernicus High School[1], is located in the East Ellington School District, a large southern district with more than 100 schools that serve 56,000 students, 63% of whom are African American. Copernicus is an inner-city school that was nearing the end of its second year of participation in the Title I schoolwide program. Of the approximately 990 Copernicus students, 75% were classified as economically deprived, and from inner city neighborhoods where the crime rate is high. In fact, a teacher was mugged on the campus earlier in the year. The Copernicus student body racial makeup is 99% black and 1% white.

The norm-referenced test (NRT) administered to all high school students in the district is the Iowa Test of Educational Development (ITED). The average percentile rank for grade 11 students on the ITED at Copernicus was 19. In

[1]All names are pseudonyms.

addition, high school students must pass a state developed criterion-referenced test (CRT) in order to graduate. The attainment rate for initial testing on the CRT for Copernicus students was 66% in language arts and 54% in mathematics, both well below state rates of 87% in language arts and 76% in mathematics. Nonetheless, the rate in both areas represents an improvement for Copernicus students over the prior year, which suggests that the school may be moving toward improved achievement.

Data Collection and Instrumentation

Data reported here were collected through classroom observations. A five-member research team visited the school for two consecutive days to gather data. Observations lasting a complete class period occurred in 18 of the 33 regular classrooms at Copernicus. Two data collection techniques were used. Qualitative data were collected through scripting classroom events. Quantitative data were gathered using the Components of Effective Teaching (CET), a quantitative measure. The CET included 13 items measuring instruction and 6 items measuring classroom management. Items measuring instructional effectiveness included "Relates relevant examples to the content"; and items measuring classroom management effectiveness included, "Manages routines and transitions in a timely manner." The CET scoring scale ranges from 1 = "Unsatisfactory," to 4 = "Demonstrates Excellence."

Qualitative data were explored using content analysis (Lincoln & Guba, 1985). For the quantitative data, descriptive statistics are reported.

## Results

According to the schoolwide plan for Copernicus, the school received a 2-year total of $556,256 in Title I funding. Fifty-two percent of the money was allocated to the computer lab, and 27% was allocated to hiring teacher aides to assist in English and mathematics classes. The plan contained nine items related to instruction.

Table 1 shows the extent to which observable instructional components of the Title I program were seen in the 18 classrooms. The most frequently observed components were hands-on activities and instructional materials, which were each observed in four classes. Instructional materials included dictionaries and thesauruses; hands-on activities included a science class in which students were making a geological time line. Cooperative learning was observed in two classes. In one of the classes, the activity appeared to be one students completed routinely. Although students complied with the assignment, it posed little challenge.

Two classes of students were observed using the computer lab. The lab became operational two weeks prior to the visit to the school, thus neither teachers nor students were proficient with the software. Computer-assisted instruction across the curriculum was not observed, though there were computers in several classrooms. In addition, a writing lab with 13 computers was not observed in use, and research team members were told it has not been used during the year. The Accelerated Reader Program, a remedial, skill-building program, was also not used.

All observed classes were strikingly small, ranging from 9 to 18 students. Several teachers mentioned that approximately one-third of the students were

absent on the days of the school visit. In 16 of the 18 classes visited, activities were primarily question and answer, lecture and note-taking, worksheets, and/or review. While opportunities for higher order thinking were observed in five classes, development of such skills was seldom a major aspect of instruction. Most often higher order thinking was isolated to answering a teacher's question in a lesson that was otherwise oriented to knowledge or skill building. A strong academic press was observed in four classes, where teachers were intolerant of off-task behavior, used humor to redirect students' attention, and circulated about the room to be physically near students who tended to stray. These teachers moved the lesson at a brisk pace, and involved students in various aspects of the lesson.

Eight teachers used effective classroom management techniques, and eight established a positive classroom climate, where student effort was recognized and supported, if not always expected. Also, eight teachers exhibited good rapport with students, joking with them appropriately and creating a light-hearted, relaxed classroom environment.

Off-task behavior in most classes was seldom redirected to the assignment, particularly if the off-task behavior were not disruptive, such as sleeping. In two classes, there was an obvious lack of academic press. In all but three classes, teachers successfully established an environment which resulted in compliant student behavior. A negative classroom climate was not observed in any class.

Findings from the CET are presented in Table 2. The average score in the Instructional Domain was $\bar{x}$=2.5. The indicator on which teachers scored highest

was "Communicates effectively with students," with a mean of 3.1. A score of "3" reflects an "area of strength," signifying that teachers consistently meet and sometimes exceed the standard skill level. That Copernicus teacher scored slightly above three on this indicator, suggests that effective student-teacher interaction is a strength of the instructional program.

The indicators on which teachers scored lowest were "Uses techniques which develop the lesson effectively" ($\bar{x}$=2.2), and "Uses available materials to achieve lesson objective" ($\bar{x}$=2.2). A score of "2" signifies that performance sometimes meets expectations. Improvement activities are required for performance to consistently meet standards. Although Copernicus teachers scored above two on these two indicators, scores on these and six other indicators (sequence's lesson to promote learning; adjusts lesson when appropriate; relates relevant examples . . . or events to content; stimulates and encourages higher order thinking; monitors on-going performance of students; and provides feedback to students regarding their progress) were below 2.5, the mid-point of the range. This suggests that staff development would be beneficial.

The average score in the Management Domain on the CET was $\bar{x}$=2.7. The indicators on which teachers scored highest were "Promotes a positive learning climate" ($\bar{x}$=2.8) and "Manages routines/transitions in a timely manner" ($\bar{x}$=2.8). Teachers scored lowest on the indicators, "Uses monitoring techniques to facilitate learning" ($\bar{x}$=2.6), and "Establishes expectations for learning behavior" ($\bar{x}$=2.6). These average lowest scores are above the mid-point of the range ($\bar{x}$=2.5),

suggesting that management is an area of greater strength for the faculty. However, these scores are below 3. Focusing staff development on the classroom management strategies would improve the instructional program at Copernicus.

Summary

The evidence was mixed regarding implementation of Title I instructional goals. Augmenting student learning through the use of technology was inhibited by the delay in opening the computer lab, by not using the writing lab, and by teacher adherence to teacher-centered instructional strategies in which students are expected to be inactive learners. More important, in nearly all classes, students were assumed to be passive learners who compliantly attended to tasks that demanded little intellectual rigor. On the other hand, the skill of the faculty in establishing rapport with these low-income students and in creating a positive learning climate are strengths that could be used to promote successful implementation of Title I instructional components. In the next section, we present a contrast between a traditional teacher-centered class, and a student-centered class in which students were encouraged to use various learning styles to accomplish a week-long project on poetry.

English with Ms. Thomas

Ms. Thomas called roll and determined that 11 students were present and 7 were absent on the day of the observation. She allowed 8 minutes for students to copy the day's work from the board. The assignments consisted of (1) several

workbook activities, (2) a two-page short story, (3) written questions about the story, and (4) teacher-led discussion.

The day's lesson. Eleven minutes after the opening class bell, Ms. Thomas began the day's lesson, directing students to take out their workbooks and turn to a vocabulary assignment. For the next 10 minutes, students read the words aloud, defined them, used them in sentences, and discussed homonyms for them. One student, who had no materials, was permitted to sit idly during the entire class period.

At Ms. Thomas' direction, students next began taking turns reading a story aloud. When the story was completed, Ms. Thomas asked several questions concerning the historical context of the story, and reminded students that they had discussed the relevant time period in social studies class. Students were relatively unresponsive to teacher questioning until the teacher offered 10 "bonus" points for each correct answer not easily available in the text. Student responsiveness spiked and the observer noted six occasions when bonus points were given.

The next activity returned students to their workbooks. They were allowed 14 minutes to complete eight multiple-choice workbook items. Students who finished early sat quietly and waited. Ms. Thomas then put a transparency on the overhead projector showing each of the eight items. Students were called on individually to supply the correct answer. Those who did walked to the overhead projector and circled the correct response on the transparency.

With one minute left in the class period, Ms. Thomas announced that the remainder of the assignments would be completed in class the next day. Students put away their materials and prepared to leave the classroom. All exited immediately at the sound of the bell.

Other Elements of the Class. Ms. Thomas had good classroom management skills, and used routines familiar to students. No discipline problems were noted. The day's lesson was entirely teacher-directed, with some students participating more than others, and some permitted to be uninvolved. Students did not exhibit enthusiasm or hostility for learning during the period. Teacher expectations were to avoid disruptive behaviors, for students to follow and to complete the seat work as directed, and to answer questions when called upon. Uninvolved students were not called on, circumventing possible disruption. Occasionally, Ms. Thomas expected students to volunteer answers.

English with Ms. Ingersoll

As the bell sounded, Ms. Ingersoll quickly scanned the room to determine who was in attendance. Eleven students were also present in this class. Ms. Ingersoll then reviewed the day's work, which was a continuation of a week-long assignment in which students were producing booklets of original poetry, with illustrations. The booklets, entitled "A Collection of Poems," would contain poems on nature, death, and art. Today's assignment was to write poems on death.

Ms. Ingersoll reiterated the requirement that students use proper English both when speaking in class and when writing the poems. While she reminded

students of terms related to the activity, such as couplet, alliteration, and rhyming patterns, a Title I aide passed out materials students would need. Students were praised for the artwork which would accompany the poems. Points to be earned for the project were displayed on the board, reminding students what was expected of them. Ms. Ingersoll completed introducing the lesson in seven minutes.

The day's lesson. As students began the task of writing their poems, Ms. Ingersoll and the aide circulated around the room providing individualized assistance as needed. One student who seemed hesitant to begin was immediately assisted by Ms. Ingersoll and subsequently began the assignment. All students remained on task throughout the period. A comfortable, working relationship was evident between adults and students. Students readily asked for help and seemed to enjoy the work, even on those occasions when they struggled with writing.

Ms. Ingersoll offered suggestions to students to facilitate their writing, encouraging them to generate ideas through brainstorming or "visualizing" while writing their poems. Approximately halfway through the period, she praised the whole class for the "beautiful" poems being written, and reminded students they were required to include one couplet in the poem on death. One student quickly verbalized for the class what a couplet was, then all returned to their writing.

During the last 15 minutes of class, Ms. Ingersoll announced every five minutes the amount of time remaining, enabling students to adjust the pace of their work to the time constraints. Two minutes before the bell, students who had completed their poems announced they planned to do the final edit the next day.

Concluding routines occurred as smoothly as those that initiated class activities, with a student collecting and storing materials that had been distributed. When the bell rang to end the period, most students were still working. Ms. Ingersoll's class was marked by a high degree of student interest, which not only kept the students steadily at their work throughout the period, but prompted two students to remain for a final minute or two of help.

Other Elements of the Class. Like Ms. Thomas, Ms. Ingersoll used good management skills and routines familiar to students. The classroom climate was productive and relaxed, with no discipline problems. In contrast to Ms. Thomas's class, Ms. Ingersoll's students were engaged in creative work that was meaningful to them. They displayed an enthusiasm for learning, eagerly working and frequently asking Ms. Ingersoll or the aide for feedback and/or validation. Ms. Ingersoll expressed high expectations for students to think critically and creatively, and to use correct grammar. Table 3 shows the contrasts in instructional aspects of the classes conducted by Ms. Thomas and Ms. Ingersoll.

## Discussion

The present study investigated the degree to which non-traditional teaching strategies targeted in Title I plans at Copernicus High School were implemented. The schoolwide plan identified student-centered instructional approaches, such as cooperative learning, hands-on activities, and integrating technology with instruction. Little use of these strategies was observed. Similarly, though critical thinking was stressed in the 1988 amendments to the Title I program (LeTendre,

1991), Copernicus students were rarely involved in tasks requiring higher order thinking. As for the integration of computers into the curriculum, computers were not observed in use in any of the 18 classrooms visited. Moreover, the computer lab had just become operational and teachers and students were unfamiliar with the software. Thus, even teachers who attempted to use the lab were hindered in their efforts. Such findings are troubling in light of substantial sums of money spent on the school's Title I program during the 2-year period.

Focusing more narrowly on the two English classes allows a contrast between the kind of teaching that is typically found in low-income high schools and what is possible. Ms. Thomas's approach was traditional and teacher-centered. Her students were unresponsive until offered the opportunity of earning bonus points. Conversely, Ms. Ingersoll used a student-centered approach, resulting in active student engagement. While Ms. Thomas took center stage, Ms. Ingersoll acted as coach and facilitator. In addition, Ms. Ingersoll communicated high expectations for student performance, clearly conveying a belief in students' ability to produce a high-quality product, and then assisting their efforts. The activity in Ms. Ingersoll's class called for hands-on involvement, and tapped a variety of learning styles by integrating the production of literary pieces with the production of relevant art. Students were required to use individualized effort, critical thinking, and creativity.

The contrast between these two Copernicus High School classes clearly illustrates that there does not have to be an emphasis on remediation to produce student learning in inner-city high schools. Professional development to build

teachers' instructional repertoire could not only empower Copernicus teachers to implement student-centered instruction, but could also provide an awareness that low-income adolescents can be engaged in demanding cognitive activity, given a supportive teacher who believes in their ability to do the work.

## References

Borman, G. D., & D'Agostino, J. V. (Winter 1996). Title I and student achievement: A meta-analysis of federal evaluation results. Educational Evaluation and Policy Analysis, 18(4), 309-326.

Carter, L. F. (1984). The Sustaining Effects Study of compensatory and elementary education. Educational Researcher, 13(7), 4-13.

Claiborne, T., & Taylor, D. L. (January, 1998). An evaluation of the Title I schoolwide program: A case analysis of two schools. Paper presented at the annual meeting of the Southwest Educational Research Association, Houston, TX.

Education Funding Research Council. (1995). Title I today: A comprehensive overview of the largest federal aid program for local schools (ISBN number 0-933538-55-3). Arlington, VA: Author.

Evans, R. (1996). The human side of school change: Reform, resistance, and the real-life problems of innovation. San Francisco: Jossey-Bass.

Kline, L. (1995). A baker's dozen: Effective instructional strategies. In R. Cole (Ed.) Educating everybody's children: Diverse teaching strategies for diverse learners. What research and practice say about improving instruction (pp. 21-43). Alexandria, VA: Association for Supervision and Curriculum Development.

LeTendre, M. J. (1991). The continuing evolution of a federal role in compensatory education. Educational Evaluation and Policy Analysis, 13(4), 328-334.

Lincoln, Y., & Guba, E. (1985). Naturalistic inquiry. Newbury park, CA: Sage.

Murphy, J. (1991). Restructuring schools: Capturing and assessing the phenomena. New York: Teachers College Press.

O'Neil, J. (October, 1990). Making sense of style. Educational leadership, 48(2), 4-9.

Peters, T., Schubeck, K., & Hopkins, K. (1995). A thematic approach: Theory and practice at the Aleknagik school. Phi Delta Kappan, 76, 633-636.

Qin, Z., Johnson, D. W., & Johnson, R. T. (1995). Cooperative versus competitive efforts and problem solving. Review of Educational Research, 65(2), 129-143.

Roth, W. M., Woszdzyna, C., & Smith, G. (1996). Affordances and constraints of computers in science education. Journal of Research in Science Teaching, 33(9), 995-1017.

Schlechty, P. (1992). Schools for the 21st century: Leadership imperatives for educational reform. San Francisco: Jossey-Bass.

Sizer, T. R. (1984). Horace's compromise: The dilemma of the American high school. Boston: Houghton Mifflin.

Soniat, K. M. (1998). A literature review on effective teaching practices at the secondary level. Unpublished manuscript.

Van Dusen, L. M., & Worthen, B. R. (1995). Can integrated instructional technology transform the classroom? Educational Leadership, 53(2), 28-33.

Wilson, B. (1986). When technology enhances teaching: New tools help students break through conceptually difficult topics. American Educator, 10(4), 8-13, 46-47.

Wong, K. K., & Meyer, S. J. (Summer 1998). Title I schoolwide programs: A synthesis of findings from recent evaluation. Educational Evaluation and Policy Analysis, 20(2), 115-136.

Table 1

Summary of Title I Program Instructional Components and Number of Times Each Component was Observed in Classrooms

| Program component | Times observed |
|---|---|
| Computer lab used | 2 |
| Computers across the curriculum | 0 |
| Cooperative learning | 2 |
| Hands-on activities | 4 |
| Instructional materials | 4 |
| **Other Observed Attributes** | |
| Q&A, lecture/note-taking, worksheets, review | 16 |
| Higher order thinking skills | 5 |
| Strong academic press | 4 |
| Effective classroom management | 8 |
| Positive classroom climate | 8 |
| Good teacher/student rapport | 8 |
| Weak academic press | 2 |
| Ineffective classroom management | 3 |
| Negative classroom climate | 0 |

Table 2

Average Scores on the Components of Effective Teaching (CET)

| Indicator by domain | Average |
|---|---|
| Instructional domain | 2.5 |
| Uses techniques which develop lesson effectively | 2.2 |
| Sequences lesson to promote learning | 2.4 |
| Uses available materials to achieve lesson objectives | 2.2 |
| Adjusts lesson when appropriate | 2.4 |
| Presents content at developmentally appropriate level | 2.9 |
| Presents accurate subject matter | 2.8 |
| Relates relevant examples . . . or events to content | 2.3 |
| Accommodates individual differences | 2.5 |
| Communicates effectively with students | **3.1** |
| Stimulates and encourages higher order thinking | 2.3 |
| Encourages student participation | 2.7 |
| Monitors on-going performance of students | 2.4 |
| Provides feedback to students regarding their progress | 2.4 |
| Management domain | 2.7 |
| Organizes space, materials, equipment to facilitate learning | 2.7 |

(table continues)

| Indicator by domain | Average |
|---|---|
| Promotes a positive learning climate | **2.8** |
| Manages routines/transitions in timely manner | **2.8** |
| Manages/adjusts time for planned activities | 2.7 |
| Establishes expectations for learning behavior | 2.6 |
| Uses monitoring techniques to facilitate learning | 2.6 |

NOTE: Scores ranged from 1 = "Unsatisfactory" to 4 = "Demonstrates Excellence." The midpoint of the scale was 2.5. The highest scores in each domain are bolded.

Table 3

Contrasts in Observed Teaching Situations

| Contrasted element | Ms. Thomas | Ms. Ingersoll |
|---|---|---|
| Grade level of students | 9 | 11 |
| Reference materials used | No | Thesaurus |
| Lesson focus | Traditional | Critical thinking |
| | Q&A, workbook | Production of poetry |
| | Skill-building | |
| Instructional strategies | Teacher-directed | Student-directed |
| | Whole class | Individualized |
| Teacher expectations | Low | High |
| | Follow teacher's lead | Original poetry |
| | Compliance | Effort |
| | Order | |
| Academic press | Weak | Strong |
| Reinforcement strategies | "Bonus" points | Praise for efforts |